


# TECHNICAL MEMORANDUM


## Utah Coal Regulatory Program

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December 12, 2007

TO: Internal File

THRU: Pamela Grubaugh-Littig, Permit Supervisor   
Wayne Western, Team Lead *W H W*

FROM:  Dana Dean, P.E.; Senior Reclamation Hydrologist

RE: North Lease Incidental Boundary Change, Canyon Fuel Company, Skyline Mine, C/007/0005, Task ID #2874

### SUMMARY:

Canyon Fuel Company (CFC, the Permittee) submitted an amendment to add 680 acres to the Skyline Mine permit through an Incidental Boundary Change on June 27, 2007. The Division returned a deficiency list to CFC on September 25, 2007. Canyon Fuel Company submitted additional information on October 26, 2007.

CFC will lease the coal in the additional acreage from Energy Fuels Corporation and C&B Coal. The land is privately owned. CFC will conduct development mining in the IBC area (no second mining, no planned subsidence), and they will not cause any additional surface disturbance at this time.

This technical memorandum discusses the hydrology related issues pertaining to the application.

The application meets the requirements of the relevant hydrology regulations. The Division should approve it and incorporate it into the approved MRP.

This amendment will not require any changes to the hydrology sections of the Master TA, nor to the CHIA.

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**TECHNICAL ANALYSIS:**

**ENVIRONMENTAL RESOURCE INFORMATION**

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

**MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION**

Regulatory Reference: 30 CFR 783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.

**Analysis:**

**Surface and Subsurface Ownership Maps**

The Permittee has met the requirements of **R645-301-521.131**. Drawing 1.6-1 has been corrected to show the correct surface and coal ownership, as described in the text.

**Certification Requirements**

The Permittee has met the requirements of **R645-301-512.140**, in reference to the certification of required hydrologic resource maps. Gregg Galecki, a Licensed Professional Geologist certified Drawings 2.3.4-2 (Potentiometric Surface Map 11/06), 2.3.5-1-1 (Surface Water Rights on and Adjacent to the Skyline Property), and 2.3.5.2-1.

**Findings:**

The Permittee has complied with the Maps, Plans and Cross Sections of Resource Information requirements of the Regulations.

**OPERATION PLAN**

**HYDROLOGIC INFORMATION**

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

**Analysis:**

### **General**

The Permittee has met the requirements of R645-301-731. They will limit operations to development mining in the IBC area, and do not plan any subsidence. They will not disturb any surface in the IBC area. Damage to the hydrologic balance will thus be minimized within the permit area, and prevented outside the permit area.

### **Groundwater Monitoring**

The Permittee has met the requirements of R645-301-731.210. The Permittee has established an additional spring monitoring site (WQ1-1) just outside the permit area near the IBC. A spring and seep survey conducted in 2006 identified this particular spring, which issues from the Blackhawk Formation.

### **Surface Water Monitoring**

The Permittee has met the requirements of R645-301-731.220. Water monitoring is already established in Winter Quarters Canyon, the Permittee plans no surface disturbance in the IBC area, and they will limit operations to development mining in the IBC. Thus, no additional disturbance to water resources is planned, and monitoring is already in place.

### **Findings:**

The Permittee has met the Hydrologic Operation Plan Information requirements of the regulations.

## **MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS**

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

### **Analysis:**

#### **Monitoring and Sampling Location Maps**

The Permittee has met the requirements of R645-301-731.730. The Permittee has updated Drawings 2.3.6-1 and 2.3.6-2 to include the IBC in the permit area. They have also added WQ1-1 to Drawing 2.3.6-1.

### **Certification Requirements**

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The Permittee has met the requirements of **R645-301-512.140**, in reference to the certification of required hydrologic resource maps. Gregg Galecki, a Licensed Professional Geologist certified Drawings 2.3.6-1 (Location of Hydrologic Monitoring Stations), and 2.3.6-2, (North Lease Subsidence Monitoring Points).

**Findings:**

The Permittee has complied with the Maps, Plans and Cross Sections of Mining Operations requirements of the Regulations.

## **RECLAMATION PLAN**

### **HYDROLOGIC INFORMATION**

Regulatory Reference: 30 CFR Sec. 784.14, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-301-512, -301-513, -301-514, -301-515, -301-532, -301-533, -301-542, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-733, -301-742, -301-743, -301-750, -301-751, -301-760, -301-761.

**Analysis:**

#### **Hydrologic Reclamation Plan**

The Permittee will not disturb any surface in the IBC area at this time. Therefore, they will not install any hydrologic structures there, and the R645 Rules regarding hydrologic reclamation do not apply.

**Findings:**

The Permittee has met the Hydrologic Reclamation Plan Information requirements of the regulations.

## **CUMULATIVE HYDROLOGIC IMPACT ASSESSMENT**

Regulatory Reference: 30 CFR Sec. 784.14; R645-301-730.

**Analysis:**

The Division completed a Cumulative Hydrologic Impact Assessment in February 2006. It already includes the IBC area, and does not need to be updated in light of the IBC.

**Findings:**

The current CHIA is sufficient to meet the requirements of the R645 Rules.

**RECOMMENDATIONS:**

The application meets the requirements of the relevant hydrology regulations. The Division should approve it and incorporate it into the approved MRP.